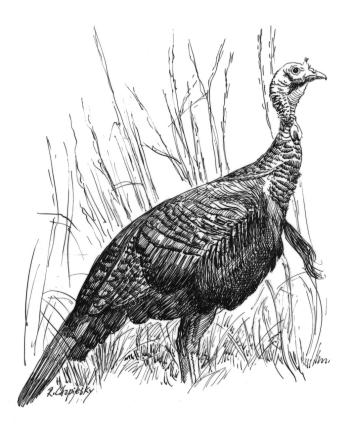
## 2008 SOUTH CAROLINA TURKEY HARVEST REPORT



# SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES TURKEY RESEARCH & MANAGEMENT PROJECT



Submitted by

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#### INTRODUCTION

Ranking only behind the white-tailed deer in popularity among hunters, the Eastern wild turkey is an important natural resource in South Carolina. The 2008 Turkey Hunter Survey represents the South Carolina Department of Natural Resources (DNR), Wildlife Section's ongoing commitment to conduct pertinent research related to the state's wild turkey population. The primary objectives of this survey research were to obtain valid estimates of; (1) the statewide spring gobbler harvest in 2008, (2) the harvest of gobblers in the constituent counties of the state, and (3) hunting effort related to turkeys. Information on hunter's opinions of the turkey resource and other aspects of turkey hunting are also presented.

Due to the importance of turkeys as a state resource, DNR believes that accurately assessing the harvest of turkeys, as well as hunter participation in turkey hunting, is key to the management of this species. Proposed changes in turkey-related laws and regulations should have foundations in biology, therefore, the population dynamics associated with annual hunting mortality cannot be ignored. Similarly, when issues arise that do not involve biological parameters, it is important to have information related to turkey hunter activities afield because they too form an important basis for managing wild turkeys.

Since the inception of the Statewide Turkey Restoration and Research Project (Turkey Project) the methods used to document the turkey harvest have changed. Historically, turkey harvest figures were developed using a system of mandatory turkey check stations across the state. This system yielded an actual count of harvested turkey and was, therefore, an absolute minimum harvest figure. Shortcomings in this system included deterioration of check station compliance, complaints from hunters regarding the inconvenience of check stations, and costs associated with the check station system. The requirement to check harvested turkeys in South Carolina was eliminated following the 2005 season. Prior to eliminating the check-in requirement, DNR conducted surveys in order to document the rate of noncompliance, as well as, to determine the relationship between harvest figures obtained from check stations and those obtained from surveys. As would be expected, harvest figures obtained from surveys are higher than those from check stations due to lack of compliance with the check-in requirement.

#### **Survey Methodology**

The 2008 Turkey Hunter Survey represented a random mail survey that involved a single mail-out. The questionnaire for the 2008 Turkey Hunter Survey was developed by Wildlife Section personnel (Figure 1). The mailing list database was constructed by randomly selecting 15,000 individuals who received a set of 2008 Turkey Transportation Tags which are required in order to hunt turkeys in South Carolina.

Following the mail survey, a nonresponse bias test was conducted by Responsive Management of Harrisonburg, Virginia using a Computer Assisted Telephone Interview program (CATI). Results from the mail survey were corrected for nonresponse bias using data collected from the telephone survey.

Statistical analysis was conducted using Statistix 7 (Analytical Software, Tallahassee, FL).

#### Acknowledgments

Special thanks are due DNR Licensing personnel for their cooperation in building the licensee database and data entry associated with the completed surveys. Specifically, thanks go to Bryan Kyzer for his overall cooperation as Licensing Coordinator and Vanessa Calhoun, Kim Corley, Cheriece Dowdy, and Lou Jones for their data entry. Thanks to Jay Butfiloski, DNR Furbearer Project supervisor, for his considerable efforts in data entry form design.

#### RESULTS AND DISCUSSION

#### **Turkey Harvest**

During the 2008 spring season it is estimated that a total of 15,118 adult gobblers and 2,186 jakes were harvested for a statewide total of 17,304 turkeys (Table 1). This figure represents an 8.9 percent decrease in harvest from 2007 (19,289) and a 32.2 percent decrease from the record harvest established in 2002 (16,348 check station, 25,487 estimated by survey). The reduction in harvest seen since 2002 can likely be attributable to one primary factor, poor reproduction.

Reproduction in wild turkeys has been poor five of the last six years (Figure 2) and the spring harvest following each year of low recruitment has been down (Figure 3). Unlike deer, wild turkeys are much more susceptible to significant fluctuations in reproduction and recruitment and these measures of production have simply not been good recently. Lack of success is typically associated with bad weather (cold and wet) during nesting and brood rearing season.

Additionally, many parts of the state have been under drought conditions for the last 2 years. Although dry conditions are typically good for turkey reproduction, there is likely a limit to what constitutes dry in terms of being beneficial to turkeys. Under the conditions that much of the state experienced during the last two summers, the production of food in the form of seeds and insects could have been limited, as could the vegetative growth that is important brood rearing cover. Finally, habitats are continually changing in South Carolina. Although timber management activities stimulated the growth in South Carolina's turkey population in the 1980s, considerable acreage is currently in even-aged pine stands that are greater than 10 years old, a situation that does not support turkeys as well.

#### **Harvest Per Unit Area County Rankings**

Comparisons can be made between turkey harvests from the various counties in South Carolina if a harvest per unit area is established. Harvest per unit area standardizes the harvest among counties regardless of the size of individual counties. One measure of harvest rate is the

number of turkeys taken per square mile (640ac. = 1 mile²). When considering the estimated turkey habitat that is available in South Carolina, the turkey harvest rate in 2008 was 0.8 gobblers per square mile statewide (Table 2). Although the turkey harvest has been down the last few years, this harvest rate should be considered good and is similar to other Southeastern states. The top 5 counties for harvest per unit area were Bamberg (1.9 turkeys/mile²), Pickens (1.6 turkeys/mile²), York (1.3 turkeys/mile²), and Cherokee, McCormick, and Chester tied (1.2 turkeys/mile²) (Table 2).

#### **Turkey Harvest Rankings by County**

Total turkey harvest is not comparable among counties because there is no standard unit of comparison, i.e. counties vary in size and are, therefore, not directly comparable. However, some readers may be interested in this type of ranking. The top 5 counties during 2008 were Berkeley, Colleton, Williamsburg, Orangeburg and Fairfield (Table 3).

#### **Turkey Harvest by Week of Season**

Gobbling by male wild turkeys occurs primarily in the spring and is for the purpose of attracting hens for mating purposes. Therefore, spring turkey hunting is characterized by hunters attempting to locate and call gobbling male turkeys using emulated hens calls. With respect to both biology and effective hunting, the timing of the spring gobbler season should take into account three primary factors; peak breeding, peak gobbling, and peak incubation. Considering these factors, seasons can be set to afford hunters the best opportunity to hunt during the best time (i.e. peak gobbling) without inhibiting reproductive success.

South Carolina currently has two spring turkey season frameworks. Throughout most of the state (Game Zones 1, 2, 3, 4, and 5) the season is April 1-May1. This season is based on a recommendation from DNR following gobbling and nesting studies that were conducted in the 1970's. The other season framework is March 15-May 1 and is only in effect in Game Zone 6 (lower coastal plain). This season is socio-politically based.

If seasons are set appropriately, the greatest proportion of turkeys should be harvested during the first week of the season because hens should be nesting resulting in gobblers that are

naïve and most responsive to hunter's calls. Harvest by week of season demonstrates that the timing of the April 1-May 1 season affords higher turkey harvests as most turkeys are harvested following the April 1 opening date (Figure 4). When broken-out by specific season framework the results are similar. In areas were the season begins March 15, only 28 percent of the total harvest is accounted for during the first week of the season (Figure 5). This is likely due to the fact that late March is the time of peak breeding and males gobble less because "they are all henned up". On the other hand, 40 percent of the harvest occurs during the first week of the season in areas where the season begins April 1 (Figure 6). This is due to the fact that by the first week in April, a significant number of hens have left the gobblers and begun continuous incubation. This lack of hens stimulates peak gobbling resulting in hunters being able to locate and call responsive birds. Comparing the first two weeks of each season format, we find that were the season opens March 15, 45 percent of gobbers are harvest while this figure is 62 percent where the season opens on April 1. Again, this is a reflection of fewer available hens due to nesting resulting in gobblers being more responsive to hunter's calls.

#### **Number of Turkey Hunters**

Even though all individuals receiving a set of Turkey Transportation Tags were licensed to hunt turkeys, only 42.6 percent actually hunted turkeys. Based on this figure, approximately 46,365 hunters participated in the 2008 spring turkey season, an 8 percent increase over 2007. Counties with the highest estimates for individual hunters include Fairfield, Berkeley, Laurens, Union, and Newberry (Table 4).

#### **Hunter Effort**

For the purposes of this survey hunter effort was measured in days with one day being defined as any portion of the day spent afield. Turkey hunters averaged approximately 5.7 days afield during the 2008 season (Table 4), a figure identical to that in 2007. Successful hunters averaged significantly more days afield (6.9 days) than unsuccessful hunters (4.5 days). Extrapolating to the entire population of turkey hunters yields a figure of 227,034 total days of spring gobbler hunting, down 5 percent from 2007. The number of days devoted to turkey

hunting in South Carolina is significant and points not only to the availability and popularity of turkeys as a game species, but to the obvious economic benefits related to this important natural resource. The top 5 South Carolina counties for overall days of turkey hunting during 2008 were Berkeley, Fairfield, Union, Colleton, and Newberry counties (Table 4).

#### **Hunting Success**

For determination of hunting success only those individuals that actually hunted turkeys were included in the analysis and similarly, success was defined as harvesting at least one turkey. Overall hunting success in 2008 was 30.2 percent, down 9.3 percent from 2007 (32.6%). This is likely related to the declining trend in turkey reproduction that the state has experienced in recent years, i.e. fewer turkeys available for harvest. On the other hand, unlike deer hunting which typically has high success, turkey hunting can be an inherently unsuccessful endeavor, relatively speaking. As would be expected, the majority of successful hunters take one gobbler (Figure 7). However, the percentage of successful hunters who take two birds is quite high as well. This indicates that successful hunters had nearly the same chance of taking two birds as they did one bird.

The statewide bag limit in South Carolina is five gobblers. Obviously, most successful hunters harvest only one or two birds. However, it is interesting to note the relative contribution to the total harvest of turkeys by the few hunters that harvest multiple birds. Ironically, the percentage of hunters taking more than 3 birds was only 2.8%, however, this small percentage of hunters harvested 22% of the total birds taken in the state (Figure 8).

#### **Turkey Hunting on Wildlife Management Areas (WMAs)**

Approximately 47,000 individuals purchase a Wildlife Management Area Permit in South Carolina each year. This permit allows them to hunt various species of game on pubic lands throughout the state. Wildlife Management Areas (WMAs) represent lands owned by DNR, other state owned lands enrolled in the WMA Program, US Forest Service land enrolled in the WMA Program, and private or corporate lands that are leased by DNR as part of the WMA Program.

In an effort to evaluate participation by turkey hunters on WMA lands, the 2008 Turkey

Hunter Survey asked participants if they hunted on WMA land during the 2008 season and how many turkeys they harvest. Approximately 18 percent of turkey hunters indicate that they hunt on WMA lands which equals approximately 8,695 individuals. Although the figure is below the number of deer hunters that hunt on WMA lands (18,445), the percentage of turkey hunters who hunt public land (18%) is greater than that for deer hunters (12.7%).

Success rates for WMA hunters were lower (20%) than for hunters on private land (30%). This should come as no surprise because hunters on private land typically have more familiarity with the property than hunters on public land. It is estimated that approximately 1,799 turkeys were harvested on public land representing 10.4 percent of the statewide turkey harvest. This figure should be considered good because WMA lands compose less than 10 percent of the turkey habitat in the state. Finally, it is estimated that hunters spent approximately 49,561 days afield on WMAs in South Carolina during the 2008 turkey season.

#### **Hunter Opinion Regarding Turkey Numbers**

The 2008 Turkey Hunter Survey asked participants to compare the number of turkeys in the area they hunt most often with the number of turkeys in past years. Participants were given 3 choices; increasing, about the same, or decreasing. About half (45.6%) of hunters indicated that the number of turkeys in the area they hunted most often was about the same as in past years. Significantly more hunters (40.4%) believed that the turkey population was decreasing than increasing (14.0%). On a scale of 1 to 3 with 1 being increasing, 2 being the same, and 3 being decreasing, the overall mean rating of 2.26 suggests that hunters viewed the turkey population as decreasing. The opinion among hunters that the turkey population has decreased in recent years is consistent with recent harvest trends and reproductive data.

#### **Hunter Opinion Regarding Charging a Fee for Turkey Tags**

State law requires that anyone who hunts wild turkeys must posses a set of wild turkey transportation tags and that all harvested birds must be tagged before being moved from the point of kill. Tags serve as the primary tool used to enforce the bag limit on turkeys and state law indicates that tags will be provided to hunters by DNR at no charge.

Historically tags were only available at Big Game Check Stations and the tags were

handwritten for each hunter. Supplying check stations obviously involves a certain amount of effort and expense (staff time, fuel, vehicle expense, etc.) on the part of DNR, particularly considering that there are/were over 300 stations statewide. Similarly, this method of issuing tags requires turkey hunters to make a special trip to a check station to get their tags just prior to the turkey season which involves time and travel expenses. Beginning in 2006, a form containing tags was developed that can be printed and mailed in an automated fashion, thereby removing this burden from both hunters and DNR field staff. However, the forms and postage associated with mailing them to hunters has an obvious cost.

DNR's Wild Turkey Research and Management Project receives no state funding and the federal funding and revenue that is available to the Turkey Project is extremely limited. In fact, the annual Turkey Project budget receives only enough funds to print the annual Turkey Rules and Regulations Brochure and the handwritten tag books. There is no funding for the new type of tags or for research and management activities related to wild turkeys in South Carolina.

With this in mind, the 2008 Turkey Hunter Survey asked hunters if they would support placing a \$5 charge on a set of turkey tags in order to administer the new "mail-out" tag program with remaining fund to be earmarked for turkey research and management. Overall, 73.1 percent of turkey hunters indicated support for the \$5 fee for turkey tags. Perhaps DNR will seek legislative support for placing this small fee on turkey tags which will not only pay for the administrative costs of the tag program, but it will also allow for some level of funding for future turkey research and management in South Carolina.

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Table 1. Estimated statewide turkey harvest in South Carolina in 2008.

	gggggggiii ii ii ii ii l						Rates
	Miles	Harvest	Harvest	Harvest	Jakes	Ac/Turkey	Turkey/Mi.
223,113	349	295	63	358	17.5	623.6	1.0
500,546	782	281	51	332	15.4	1507.5	0.4
216,455	338	323	38	361	10.4	600.1	1.1
219,068	342	267	50	317	15.8	690.8	0.9
196,573	307	520	50	570	8.8	344.9	1.9
281,764	440	197	13	209	6.0	1346.8	0.5
147,441	230	84	13	97	12.9	1522.7	0.4
567,530	887	885	100	985	10.2	575.9	1.1
190,584	298	84	25	109	22.8	1746.0	0.4
288,732	451	379	13	392	3.2	736.8	0.9
156,664	245	253	50	303	16.6	517.0	1.2
300,589	470	421	125	547	22.9	549.8	1.2
372,478	582	393	125	519	24.2	718.1	0.9
298,087	466	211	75	286	26.3	1042.4	0.6
502,666	785	801	38	838	4.5	599.5	1.1
286,228	447	98	13	111	11.3	2581.4	0.2
214,069	334	112	11	123	8.7	1738.0	0.4
302,717	473	309	13	322	3.9	941.2	0.7
246,543	385	211	25	236	10.6	1045.4	0.6
384,607	601	548	50	598	8.4	643.1	1.0
397,888	622	450	13	462	2.7	861.0	0.7
399,638	624	281	13	293	4.3	1361.7	0.5
294,257	460	98	50	148	33.8	1982.3	0.3
204,400	319	295	38	333	11.3	614.4	1.0
	508	478	13	490	2.6	662.6	1.0
	833	239	25	264	9.5	2020.6	0.3
	484	520	25	545	4.6	568.7	1.1
	563	225	47	272		1325.2	0.5
	416	155	50	205		1301.4	0.5
							1.1
							0.8
							0.2
							1.2
	339	295	88	383	22.9	566.6	1.1
281,271		155		192			0.4
317,761	497	351	113	464	24.3		0.9
				234			0.5
							0.8
							1.6
			63				0.5
						631.0	1.0
							0.8
							0.5
							1.0
							1.0
276,650	432	520	38	558	6.7	495.8	1.3
	21.920	15.118	2.186	17.304	12.6	810.7	0.8
		13,110	2,100		12.0	010.7	<b>0.0</b>
	500,546 216,455 219,068 196,573 281,764 147,441 567,530 190,584 288,732 156,664 300,589 372,478 298,087 502,666 286,228 214,069 302,717 246,543 384,607 397,888 399,638 294,257 204,400 324,840 533,336 309,889 360,485 266,382 317,916 220,106 280,742 212,021 216,907 281,271 317,761 284,348 504,516 219,926 340,121 192,173 265,939 338,968 258,111 513,851 276,650	500,546         782           216,455         338           219,068         342           196,573         307           281,764         440           147,441         230           567,530         887           190,584         298           288,732         451           156,664         245           300,589         470           372,478         582           298,087         466           502,666         785           286,228         447           214,069         334           302,717         473           246,543         385           384,607         601           397,888         622           399,638         624           294,257         460           204,400         319           324,840         508           533,336         833           309,889         484           360,485         563           266,382         416           317,916         497           220,106         344           280,742         439           212,021<	500,546         782         281           216,455         338         323           219,068         342         267           196,573         307         520           281,764         440         197           147,441         230         84           567,530         887         885           190,584         298         84           288,732         451         379           156,664         245         253           300,589         470         421           372,478         582         393           298,087         466         211           502,666         785         801           286,228         447         98           214,069         334         112           302,717         473         309           246,543         385         211           384,607         601         548           397,888         622         450           399,638         624         281           294,257         460         98           204,400         319         295           324,840         508         478	500,546         782         281         51           216,455         338         323         38           219,068         342         267         50           196,573         307         520         50           281,764         440         197         13           147,441         230         84         13           567,530         887         885         100           190,584         298         84         25           288,732         451         379         13           156,664         245         253         50           300,589         470         421         125           372,478         582         393         125           298,087         466         211         75           502,666         785         801         38           286,228         447         98         13           214,069         334         112         11           302,717         473         309         13           246,543         385         211         25           384,607         601         548         50           397,888 </td <td>500,546         782         281         51         332           216,455         338         323         38         361           219,068         342         267         50         317           196,573         307         520         50         570           281,764         440         197         13         209           147,441         230         84         13         97           567,530         887         885         100         985           190,584         298         84         25         109           288,732         451         379         13         392           156,664         245         253         50         303           300,589         470         421         125         547           372,478         582         393         125         519           298,087         466         211         75         286           502,666         785         801         38         838           286,228         447         98         13         111           214,069         334         112         11         123</td> <td>  S00,546</td> <td>500,546         782         281         51         332         15.4         1507.5           216,455         338         323         38         361         10.4         600.1           219,068         342         267         50         317         15.8         690.8           196,573         307         520         50         570         8.8         344.9           281,764         440         197         13         209         6.0         1346.8           147,441         230         84         13         97         12.9         1522.7           567,530         887         885         100         985         10.2         575.9           190,584         298         84         25         109         22.8         1746.0           288,732         451         379         13         392         3.2         736.8           156,664         245         253         50         303         16.6         517.0           300,589         470         421         125         547         22.9         549.8           372,478         582         393         125         519         24.2</td>	500,546         782         281         51         332           216,455         338         323         38         361           219,068         342         267         50         317           196,573         307         520         50         570           281,764         440         197         13         209           147,441         230         84         13         97           567,530         887         885         100         985           190,584         298         84         25         109           288,732         451         379         13         392           156,664         245         253         50         303           300,589         470         421         125         547           372,478         582         393         125         519           298,087         466         211         75         286           502,666         785         801         38         838           286,228         447         98         13         111           214,069         334         112         11         123	S00,546	500,546         782         281         51         332         15.4         1507.5           216,455         338         323         38         361         10.4         600.1           219,068         342         267         50         317         15.8         690.8           196,573         307         520         50         570         8.8         344.9           281,764         440         197         13         209         6.0         1346.8           147,441         230         84         13         97         12.9         1522.7           567,530         887         885         100         985         10.2         575.9           190,584         298         84         25         109         22.8         1746.0           288,732         451         379         13         392         3.2         736.8           156,664         245         253         50         303         16.6         517.0           300,589         470         421         125         547         22.9         549.8           372,478         582         393         125         519         24.2

turkey habitat within each county.

Table 2. County rankings based on turkeys harvested per unit area in South Carolina in 2008.

County	Acres*	Square	Gobbler	Jake	Total	Percent	Harvest	Rates
		Miles	Harvest	Harvest	Harvest	Jakes	Ac/Turkey	Turkey/Mi. <sup>2</sup>
Bamberg	196,573	307	520	50	570	8.8	344.9	1.9
Pickens	219,926	344	462	75	538	14.0	409.1	1.6
York	276,650	432	520	38	558	6.7	495.8	1.3
Cherokee	156,664	245	253	50	303	16.6	517.0	1.2
McCormick	212,021	331	323	63	386	16.3	549.5	1.2
Chester	300,589	470	421	125	547	22.9	549.8	1.2
Laurens	317,916	497	437	124	561	22.1	566.4	1.1
Marion	216,907	339	295	88	383	22.9	566.6	1.1
Jasper	309,889	484	520	25	545	4.6	568.7	1.1
Berkeley	567,530	887	885	100	985	10.2	575.9	1.1
Colleton	502,666	785	801	38	838	4.5	599.5	1.1
Allendale	216,455	338	323	38	361	10.4	600.1	1.1
Greenwood	204,400	319	295	38	333	11.3	614.4	1.0
Abbeville	223,113	349	295	63	358	17.5	623.6	1.0
Union	258,111	403	351	63	414	15.1	623.6	1.0
Saluda	192,173	300	267	38	305	12.3	631.0	1.0
Fairfield	384,607	601	548	50	598	8.4	643.1	1.0
Williamsburg	513,851	803	745	50	795	6.3	646.6	1.0
Hampton	324,840	508	478	13	490	2.6	662.6	1.0
Newberry	317,761	497	351	113	464	24.3	684.8	0.9
Anderson	219,068	342	267	50	317	15.8	690.8	0.9
Chesterfield	372,478	582	393	125	519	24.2	718.1	0.9
Charleston	288,732	451	379	13	392	3.2	736.8	0.9
Lee	220,106	344	239	50	289	17.3	761.6	0.8
Orangeburg	504,516	788	590	63	653	9.6	772.8	0.8
Spartanburg	265,939	416	295	38	333	11.3	799.4	0.8
Florence	397,888	622	450	13	462	2.7	861.0	0.7
Dorchester	302,717	473	309	13	322	3.9	941.2	0.7
Clarendon	298,087	466	211	75	286	26.3	1042.4	0.6
Edgefield	246,543	385	211	25	236	10.6	1045.4	0.6
Oconee	284,348	444	197	38	234	16.0	1213.6	0.5
Lancaster	266,382	416	155	50	205	24.5	1301.4	0.5
Kershaw	360,485	563	225	47	272	17.4	1325.2	0.5
Barnwell	281,764	440	197	13	209	6.0	1346.8	0.5
Sumter	338,968		225	25	250			0.5
Georgetown	399,638		281	13	293	4.3	1361.7	0.5
Richland	340,121	531	183	63	245	25.6	1386.6	0.5
Marlboro	281,271	439	155	38	192	19.6	1463.7	0.4
Aiken	500,546		281	51	332	15.4	1507.5	
Beaufort	147,441	230	84	13	97	12.9	1522.7	0.4
Dillon	214,069	334	112	11	123	8.7	1738.0	0.4
Calhoun	190,584	298	84	25	109	22.8	1746.0	0.4
Greenville	294,257	460	98	50	148	33.8	1982.3	0.4
Horry	533,336	833	239	25	264	9.5	2020.6	
Darlington	286,228	447	98	13	111	11.3	2581.4	0.3
	280,742	439	70	10	80	12.4	3501.4	0.2
Lexington	Z0U /4/	4 17	/()	117	(11)		).)()   →	11 /

Table 3. County rankings based on total turkeys harvested in South Carolina in 2008.

County	Acres*	Square	Gobbler	Jake	Total	Percent	Harvest	Rates
		Miles	Harvest	Harvest	Harvest	Jakes	Ac/Turkey	Turkey/Mi. <sup>2</sup>
Berkeley	567,530	887	885	100	985	10.2	575.9	1.1
Colleton	502,666	785	801	38	838	4.5	599.5	1.1
Williamsburg	513,851	803	745	50	795	6.3	646.6	1.0
Orangeburg	504,516	788	590	63	653	9.6	772.8	0.8
Fairfield	384,607	601	548	50	598	8.4	643.1	1.0
Bamberg	196,573	307	520	50	570	8.8	344.9	1.9
Laurens	317,916	497	437	124	561	22.1	566.4	1.1
York	276,650	432	520	38	558	6.7	495.8	1.3
Chester	300,589	470	421	125	547	22.9	549.8	1.2
Jasper	309,889	484	520	25	545	4.6	568.7	1.1
Pickens	219,926	344	462	75	538	14.0	409.1	1.6
Chesterfield	372,478	582	393	125	519	24.2	718.1	0.9
Hampton	324,840	508	478	13	490	2.6	662.6	1.0
Newberry	317,761	497	351	113	464	24.3	684.8	0.9
Florence	397,888	622	450	13	462	2.7	861.0	0.7
Union	258,111	403	351	63	414	15.1	623.6	1.0
Charleston	288,732	451	379	13	392	3.2	736.8	0.9
McCormick	212,021	331	323	63	386	16.3	549.5	1.2
Marion	216,907	339	295	88	383	22.9	566.6	1.1
Allendale	216,455	338	323	38	361	10.4	600.1	1.1
Abbeville	223,113	349	295	63	358	17.5	623.6	1.0
Greenwood	204,400	319	295	38	333	11.3	614.4	1.0
Spartanburg	265,939	416	295	38	333	11.3	799.4	0.8
Aiken	500,546	782	281	51	332	15.4	1507.5	0.4
Dorchester	302,717	473	309	13	322	3.9	941.2	0.7
Anderson	219,068	342	267	50	317	15.8	690.8	0.9
Saluda	192,173	300	267	38	305	12.3	631.0	1.0
Cherokee	156,664	245	253	50	303	16.6	517.0	1.2
Georgetown	399,638	624	281	13	293	4.3	1361.7	0.5
Lee	220,106	344	239	50	289	17.3	761.6	0.8
Clarendon	298,087	466	211	75	286	26.3	1042.4	0.6
Kershaw	360,485	563	225	47	272	17.4	1325.2	0.5
Horry	533,336	833	239	25	264	9.5	2020.6	0.3
Sumter	338,968	530	225	25	250	10.0	1356.7	0.5
Richland	340,121	531	183	63	245	25.6	1386.6	0.5
Edgefield	246,543	385	211	25	236	10.6	1045.4	0.6
Oconee	284,348	444	197	38	234	16.0	1213.6	
Barnwell	281,764	440	197	13	209	6.0	1346.8	0.5
Lancaster	266,382	416	155	50	205	24.5	1301.4	
Marlboro	281,271	439	155	38	192	19.6	1463.7	0.4
Greenville	294,257	460	98	50	148	33.8	1982.3	
Dillon	214,069	334	112	11	123	8.7	1738.0	0.4
Darlington	286,228	447	98	13	111	11.3	2581.4	
Calhoun	190,584		84	25	109	22.8	1746.0	
Beaufort	147,441	230	84	13	97	12.9	1522.7	0.4
Lexington	280,742	439	70	10	80	12.4	3501.4	
Total	14,028,896	21,920	15,118	2,186	17,304	12.6	810.7	0.8

Table 4. Estimated number of turkey hunters, average days hunted, and total hunting effort by county in South Carolina in 2008.

County	Total	<del> </del>	Avg. Days	Total
	Harvest			Man/Days
Abbeville	358	1,087	5.0	4,861
Aiken	332	855	4.3	3,293
Allendale	361	1,051	5.2	4,845
Anderson	317	1,230	4.4	4,861
Bamberg	570	998	6.1	5,430
Barnwell	209	588	7.6	3,990
Beaufort	97	339	4.5	1,346
Berkeley	985	1,853	6.6	10,813
Calhoun	109	535	5.9	2,818
Charleston	392	998	4.8	4,243
Cherokee	303	695	6.6	4,069
Chester	547	1,550	6.1	8,359
Chesterfield	519	1,087	6.6	6,396
Clarendon	286	445	5.8	2,296
Colleton	838	1,426		8,771
Darlington	111	445	6.2	2,470
Dillon	123	232	6.7	1,377
Dorchester	322	980	5.5	4,813
Edgefield	236	1,230	4.2	4,560
Fairfield	598	2,049	5.8	10,481
Florence	462	998	6.1	5,415
Georgetown	293	659	4.1	2,391
Greenville	148	855	4.8	3,673
Greenwood	333	1,087	5.8	5,636
Hampton	490	1,319	5.0	5,810
Horry	264	855	5.7	4,322
Jasper	545	695	6.6	4,053
Kershaw	272	1,016	5.4	4,908
Lancaster	205	624	6.1	3,372
Laurens	561	1,764	5.4	8,391
Lee	289	588	4.7	2,454
Lexington	80	214	4.8	902
McCormick	386	1,176	4.5	4,671
Marion	383	766	4.8	3,261
Marlboro	192	535	4.9	2,312
Newberry	464	1,675	5.7	8,518
Oconee	234	837	6.4	4,766
Orangeburg	653	1,319	5.3	6,254
Pickens	538	1,408	6.0	7,457
Richland	245	998	4.4	3,911
Saluda	305	659	5.9	3,451
Spartanburg	333	1,354	4.0	4,813
Sumter	250	944	4.6	3,879
Union	414	1,746	6.0	9,341
Williamsburg	795	1,372	4.7	5,747
York	558	1,230	6.6	7,235
Total	17,304	46,365	5.7	227,034

#### Figure 1. South Carolina Department of Natural Resources 2008 Turkey Hunter Survey.

May, 2008

#### Dear Sportsman:

Eastern wild turkeys are one of the most important game species in South Carolina. Therefore, it is important that this species be monitored for population status and harvesting activities. Wildlife resource managers require current and accurate information about wild turkey harvests to aid in successfully managing this important natural resource and to optimize future hunting potential. To obtain this needed data, the Department of Natural Resources (DNR) is conducting a survey of hunters who received a set of turkey tags during spring 2008.

You are one of a group of randomly selected hunters asked to participate in this survey. To draw accurate conclusions it is very important that you complete the survey and return it. Please take time to read each question. Even if you did not hunt wild turkeys this spring please indicate this by answering the appropriate questions and moving on to the next set of questions.

Please note that complete confidentiality will be given to you. Each survey form is numbered, but only so we can avoid costly repeat mailings to those survey participants who have returned their survey.

The purpose of the survey is to estimate the wild turkey harvest in South Carolina, not to determine whether game laws are observed. By accurately answering the survey questions you will enable DNR biologists to better manage the Eastern wild turkey resource for you and other citizens of the state. Therefore, it is very important that you take a few minutes to complete this survey and mail it. Return postage is prepaid.

Thank you for your assistance.

Charles Ruth Wildlife Biologist

Deer/Turkey Project Supervisor

PLEASE MAIL YOUR SURVEY AFTER SEPARATING THIS HALF FROM THE SIDE ON WHICH YOUR ANSWERS HAVE BEEN ENTERED. NO POSTAGE IS NECESSARY.

If you have questions regarding this survey, please call 803-734-3886 or write 2008 Turkey Hunter Survey, SCDNR, PO Box 167, Columbia, SC 29202.

the basis of race, color, sex, national origin, disability, religion or age. Direct all inquiries to the Office of Human Resources, PO Box 167, Columbia, SC 29202

The South Carolina Department of Natural Resources prohibits discrimination on



COLUMBIA SC 29202-9976 SC DEPARTMENT OF NATURAL RESOURCES

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#### Figure 1 cont.

#### 2008 South Carolina Turkey Hunter Survey

- Did you turkey hunt in SC this past season (2008)?
   Yes
   No
   If you answered No to this question please go to question # 8.
- 2. Did you harvest any turkeys in SC this past season? 1. Yes 2. No
- 3. Even if you did not harvest a turkey, please record the SC counties you turkey hunted and the number of days hunted in each county this past season (2008). If you harvested turkeys please record the number of adult gobblers and jakes taken in each county. A day of hunting is defined as any portion of the day spent afield. Please do not give ranges (i.e. 5-10), rather provide absolute numbers (i.e. 5). Provide information only for yourself not friends, relatives, or other people you may have called or guided for. See the diagram below if you are unsure how to determine an adult gobbler or "longbeard" from a juvenile gobbler or "jake".

	Counties You Turkey Hunted	# Days Hunted	Number Turkeys Harvested
1			Adult gobblers Jakes
2			Adult gobblers Jakes
3			Adult gobblers Jakes
4			Adult gobblers Jakes
5			Adult gobblers Jakes

#### If you did not harvest any turkeys this past season please go to question ${\bf 5.}$

If you harvested turkeys this past season, please indicate as best you can the number of turkeys killed by week of season.

Week of Season	# Turkeys Harvested	Week of Season	# Turkeys Harvested
1 March 15-22		4 April 8-14	
2 March 23-31		5 April 15-21	
3 April 1-7		6 April 22-May 1	

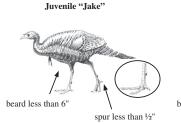
- Did you hunt turkeys on public land (WMA) in 2008?
   Yes
   If you answered No to this question, please go to question #7.
- 6. How many turkeys did you kill on WMA land? # Turkeys\_\_\_\_\_
- 7. Compared to past years, how would you describe the number of turkeys in the area that you hunted most often this spring? Circle one 1. Increasing 2. About the same 3. Decreasing
- 8. Turkey tags have always been free. This year DNR mailed tags to most hunters saving them time and money related to travel. However, there is a significant cost to DNR associated with purchasing and mailing tags. Would you support a \$5 charge for turkey tags in order to administer the tag program with remaining funds earmarked for the turkey research and management?

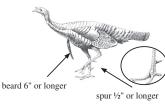
  1. Yes

  2. No
- 9. Are you a resident of SC? 1. Yes 2. No

10. If yes, which county \_\_\_\_\_

Separate and return this portion of the survey. Postage is prepaid. Please do not staple this form.





Adult "Gobbler"



TURKEY HUNTER SURVEY SCDNR
SCDNR
PO BOX 167
COLUMBIA SC 29202-0167
COLUMBIA SC 29202-0167

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Figure 2. Summer wild turkey recruitment ratio in South Carolina 1982-2007. Note poor recruitment ratio 5 out of the last 6 years. Recruitment ratio is a measure of young entering the population based on the number of hens in the population.

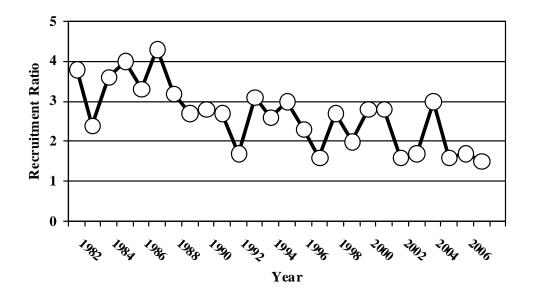


Figure 3. Spring wild turkey harvest in South Carolina 1982-2008. Note declines in harvest following years of poor recruitment that have occurred since record harvest in 2002.

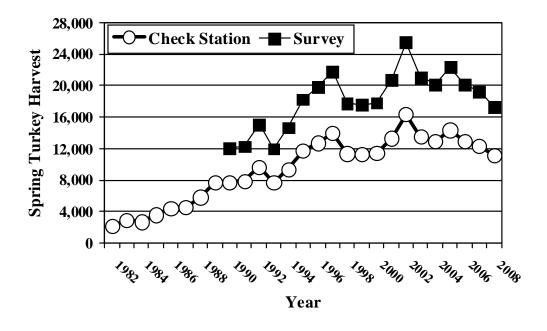


Figure 4. Percentage of gobblers harvested by week of season in South Carolina in 2008.

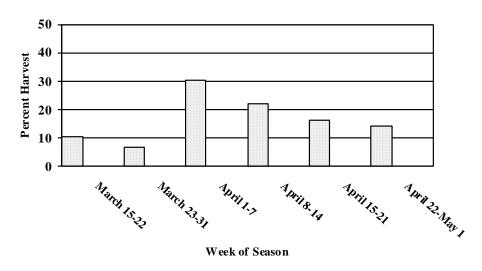


Figure 5. Percentage of gobblers harvested by week in areas with March 15-May 1 season.

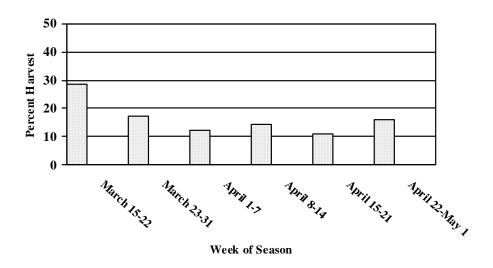


Figure 6. Percentage of gobblers harvested by week in areas with April 1-May 1 season.

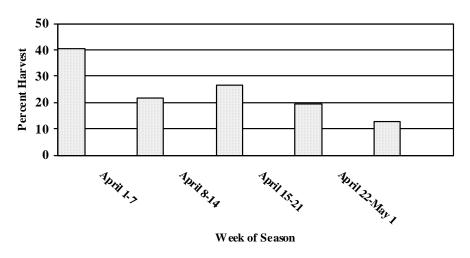


Figure 7. Hunter success during the spring turkey season in South Carolina in 2008. Overall success was 30.2 percent at harvesting at least one gobbler.

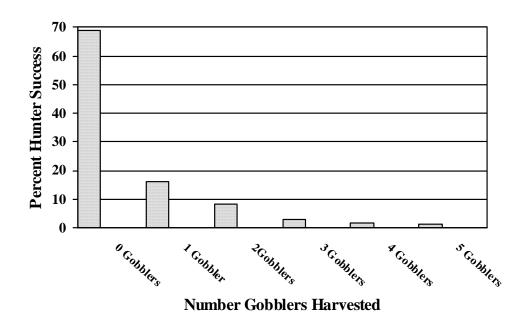


Figure 8. Relative contribution to the total turkey harvest by hunters taking more than one gobbler in South Carolina in 2008. Hunters taking more than 3 birds accounted for 22% of total harvest.

